

CLAIMS

What is claimed is:

1.

A drive for a conveyor track, comprising:
a housing having an upper end, a forward upstream end, a rearward downstream end,
and opposing transverse sides;
a continuous loop track with a first continuous loop conveyor thereon, said first
conveyor operably mounted on said housing with a first segment oriented in a
generally horizontal drive plane, and a second segment coplanar with the first
segment;
said first and second segments extending downstream in said drive plane, with a
portion of each segment parallel and transversely adjacent one another;
a guide on said housing upper end, located above the drive plane, with first guide
members oriented to direct an object on the conveyor first segment to the
conveyor second segment at the parallel portion of the segments;
a drive sprocket operably mounted on the housing and in engagement with a
downstream end of the first conveyor first segment to move the conveyor in the
track and thereby transport objects on the conveyor;
an idler sprocket operably mounted on the housing in engagement with an upstream
end of the second segment;

said first conveyor extending from the downstream end of the first segment, around a portion of the drive sprocket and thence around a portion of the idler sprocket to the upstream end of the second segment, to thereby form a continuous loop; and

a selectively operable motor on the housing in engagement with the drive sprocket for selectively driving the drive sprocket.

2.

The conveyor track drive of claim 1, wherein said first conveyor is a table top chain conveyor having a plurality of plates interconnected with links, upper surfaces of the plates forming the drive plane, and the drive and idler sprockets engaging the links.

3.

The conveyor track drive of claim 1, wherein said guide is a guide plate extending from the upstream end to the downstream end of the housing, said guide plate including a first slot formed therethrough and extending from the upstream end to the downstream end, said guide members formed by the sides of said first slot.

4.

The conveyor track drive of claim 1, wherein said motor includes a first output shaft with a reduction gear thereon, wherein said drive sprocket includes a drive gear for driving the sprocket, and further comprising a chain engaging the reduction gear with the drive gear to thereby drive the sprocket and move the first conveyor when the motor is operating to rotate the first output shaft.

5.

The conveyor track drive of claim 1, further comprising:

a second continuous loop conveyor on said track, generally parallel to the first conveyor, said second conveyor operably mounted on said housing with a first segment oriented in said drive plane, and a second segment coplanar with the first segment;

said second conveyor first and second segments extending downstream in said drive plane, with a portion of each segment parallel and transversely adjacent one another;

said guide including second guide members oriented to direct an object on the second conveyor first segment to the second conveyor second segment at the parallel portion of the segments;

a second drive sprocket operably mounted on the housing and in engagement with a downstream end of the second conveyor first segment to move the conveyor in the track and thereby transport objects on the conveyor;

a second idler sprocket operably mounted on the housing in engagement with an upstream end of the second conveyor second segment;

said second conveyor extending from the downstream end of the second conveyor first segment, around a portion of the second drive sprocket and thence around a portion of the second idler sprocket to the upstream end of the second conveyor second segment, to thereby form a continuous loop; and

said motor in engagement with the second drive sprocket for selectively driving the d
second drive sprocket.

6.

The conveyor track drive of claim 5, wherein said conveyors are table top chain
conveyors having a plurality of plates interconnected with links, upper surfaces of the
plates forming the drive plane, and the drive and idler sprockets engaging the links of
the associated chains.

7.

The conveyor track drive of claim 5, wherein said guide is a guide plate
extending from the upstream end to the downstream end of the housing, said guide
plate including a pair of first and second slots formed therethrough and extending from
the upstream end to the downstream end, said first guide members formed by the
sides of said first slot and said second guide members formed by the sides of the
second slot.

8.

The conveyor track drive of claim 5:
wherein said motor includes a first output shaft with a first reduction gear thereon and
a second output shaft with a second reduction gear thereon;
wherein said first drive sprocket includes a first drive gear for driving the first sprocket;
wherein said second drive sprocket includes a second drive gear for driving the
second sprocket;

further comprising a first chain engaging the first reduction gear with the first drive gear to thereby drive the first sprocket and move the first conveyor; and further comprising a second chain engaging the second reduction gear with the second drive gear to thereby drive the second sprocket and move the second conveyor.

9.

The conveyor track drive of claim 8, wherein said first and second reduction gears are different sizes, such that said first and second conveyors move at different speeds.